## **RAW SEQUENCE LISTING**

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: /

Source:

Date Processed by STIC:

ENTERED



PCT

RAW SEQUENCE LISTING DATE: 11/02/2004
PATENT APPLICATION: US/10/019,151C TIME: 11:17:12

Input Set : A:\KATO Sequence Listing.txt
Output Set: N:\CRF4\11022004\J019151C.raw

```
3 <110> APPLICANT: KATO, Seishi
      4 KIMURA, Tomoko
      6 <120> TITLE OF INVENTION: Human proteins having hydrophobic domains and DNAs encoding
these proteins
     8 <130> FILE REFERENCE: 2003-0984/WMC/01791
     10 <140> CURRENT APPLICATION NUMBER: 10/019,151C
C--> 11 <141> CURRENT FILING DATE: 2001-12-21
     13 <150> PRIOR APPLICATION NUMBER: JP 11-178065
     14 <151> PRIOR FILING DATE: 1999-06-24
    16 <160> NUMBER OF SEQ ID NOS: 24
    18 <210> SEQ ID NO: 1
    19 <211> LENGTH: 238
    20 <212> TYPE: PRT
    21 <213> ORGANISM: Homo sapiens
    23 <400> SEQUENCE: 1
    24 Met Ile Leu Leu Val Ile Leu Ala Phe Tyr Leu Trp Gln Val Asp Met
    27 Leu Ser Glu Ile Asn Ile Ala Pro Arg Ile Leu Thr Asn Phe Thr Gly
                     20
                                         25
    30 Val Met Pro Pro Gln Phe Lys Lys Asp Leu Asp Ser Tyr Leu Lys Thr
    33 Arg Ser Pro Val Thr Phe Leu Ser Asp Leu Arg Ser Asn Leu Gln Val
                                 55
                                                     60
    36 Ser Asn Glu Pro Gly Asn Arg Tyr Asn Leu Gln Leu Ile Asn Ala Leu
                             70
                                                75
    39 Val Leu Tyr Val Gly Thr Gln Ala Ile Ala His Ile His Asn Lys Gly
                         85
                                             90
    42 Ser Thr Pro Ser Met Ser Thr Ile Thr His Ser Ala His Met Asp Ile
                                        105
    45 Phe Gln Asn Leu Ala Val Asp Leu Asp Thr Glu Gly Arg Tyr Leu Phe
                                    120
    48 Leu Asn Ala Ile Ala Asn Gln Leu Arg Tyr Pro Asn Ser His Thr His
                                135
    51 Tyr Phe Ser Cys Thr Met Leu Tyr Leu Phe Ala Glu Ala Asn Thr Glu
                            150
    54 Ala Ile Gln Glu Gln Ile Thr Arg Val Leu Leu Glu Arg Leu Ile Val
                        165
                                            170
    57 Asn Arg Pro His Pro Trp Gly Leu Leu Ile Thr Phe Ile Glu Leu Ile
    60 Lys Asn Pro Ala Phe Lys Phe Trp Asn His Glu Phe Val His Cys Ala
                                    200
    63 Pro Glu Ile Glu Lys Leu Phe Gln Ser Val Ala Gln Cys Cys Met Gly
                                215
    66 Gln Lys Gln Ala Gln Gln Val Met Glu Gly Thr Gly Ala Ser
```

Input Set : A:\KATO Sequence Listing.txt
Output Set: N:\CRF4\11022004\J019151C.raw

67	225					230					235					
70	70 <210> SEQ ID NO: 2															
	71 <211> LENGTH: 339															
72	<212	?> TY	PE:	PRT		•										
73	<213	3> OF	RGANI	SM:	Homo	sap	iens	3								
			EQUEN			_										
76	Met	Ala	Ala	Ala	Cys	Gly	Pro	Gly	Ala	Ala	Gly	Tyr	Cys	Leu	Leu	Leu
77	1				5	_		\\		10		_			15	
79	Gly	Leu	His	Leu	Phe	Leu	Leu	Thr	Ala	Gly	Pro	Ala	Leu	Gly	Trp	Asn
80				20			•		25					30		
82	Asp	Pro	Asp	Arg	Met	Leu	Leu	Arg	Asp	Val	Lys	Ala	Leu	Thr	Leu	His
83			35					40					45			
85	Tyr	Asp	Arg	Tyr	Thr	Thr	Ser	Arg	Arg	Leu	Asp	Pro	Ile	Pro	Gln	Leu
86		50				•	55					60				
88	Lys	Cys	Val	Gly	Gly	Thr	Ala	Gly	Cys	Asp	Ser	Tyr	Thr	Pro	Lys	Val
89	65					70					75				•	80
91	Ile	Gln	Cys	Gln	Asn	Lys	Gly	Trp	Asp	Gly	Tyr	Asp	Val	Gln	Trp	Glu
92					85					90					95	
94	Cys	Lys	Thr	Asp	Leu	Asp	Ile	Ala	Tyr	Lys	Phe	Gly	Lys	Thr	Val	Val
95				100					105					110		
97	Ser	Cys	Glu	Gly	Tyr	Glu	Ser	Ser	Glu	Asp	Gln	Tyr	Val	Leu	Arg	Gly
98			115					120					125			
100	Sei	Cys	Gly	Let	ı Glu	ı Tyr	Asr	ı Lev	ı Asp	ту1	Thi	: Glu	ı Lev	Gly	. Leu	ı Gln
101		130					135					140				
	_		ı Lys	Glu	ı Ser	_	_	Glr	His	Gly			ı Ser	Phe	Ser	Asp
	145					150		_			155					160
	_	Tyr	. Tyr	Lys	_		Ser	: Ala	Asp		_	s Asr	ı Met	Ser	_	Leu
107					165		_			170				_	175	
		Thr	: Ile			Leu	Lev	ı GIY			a Phe	e Val	. Val			Leu
110		_	_	180		~1	_	_	185		_	·	_	190		
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_	225		· mb		. ~1.	230			. "	Dha	235		. ~1-		. dl.	240
121	_	Alc	1111	Ser	. Gly 245		: СТУ	Ser	ALC	250		. Gry	GII.	L GIII	255	Tyr
		1 N C T	Cor	. G1.			Dhe	Trr	The			. Gl.	. The	. G1.		lle
125			ı ser	_		_		_				GIY		_	_	
																Asp
128		GLY	275		LIIC	Gly	PCT	280		, ATC	ı Alc	1 1111	285		. Ser	Тор
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	305		y-	501		310		, UI Y	O-Y	501	315		-1-	501		320
			Ser	Agr	Thr			- Arc	ነ ጥከ፣	· Al=			Tvr	G1v	r Glu	Thr
137					325					330		1	-1-	1	335	
		, Arc	, Arg	ī	J 21 J	•					-					
-55	=	,	, 9													

Input Set : A:\KATO Sequence Listing.txt
Output Set: N:\CRF4\11022004\J019151C.raw

```
142 <210> SEQ ID NO: 3
143 <211> LENGTH: 326
144 <212> TYPE: PRT
145 <213> ORGANISM: Homo sapiens
147 <400> SEQUENCE: 3
148 Met Ala Lys Met Glu Leu Ser Lys Ala Phe Ser Gly Gln Arg Thr Leu
                     5
                                         10
151 Leu Ser Ala Ile Leu Ser Met Leu Ser Leu Ser Phe Ser Thr Thr Ser
               2.0
                                    25
154 Leu Leu Ser Asn Tyr Trp Phe Val Gly Thr Gln Lys Val Pro Lys Pro
157 Leu Cys Glu Lys Gly Leu Ala Ala Lys Cys Phe Asp Met Pro Val Ser
       50
                            55
160 Leu Asp Gly Asp Thr Asn Thr Ser Thr Gln Glu Val Val Gln Tyr Asn
                        70
163 Trp Glu Thr Gly Asp Asp Arg Phe Ser Phe Arg Ser Phe Arg Ser Gly
                    85
                                        90
166 Met Trp Leu Ser Cys Glu Glu Thr Val Glu Glu Pro Gly Glu Arg Cys
               100
                                   105
169 Arg Ser Phe Ile Glu Leu Thr Pro Pro Ala Lys Arg Glu Ile Leu Trp
          115
                               120
172 Leu Ser Leu Gly Thr Gln Ile Thr Tyr Ile Gly Leu Gln Phe Ile Ser
                           135
175 Phe Leu Leu Leu Thr Asp Leu Leu Thr Gly Asn Pro Ala Cys
                       150
                                            155
178 Gly Leu Lys Leu Ser Ala Phe Ala Ala Val Ser Ser Val Leu Ser Gly
                   165
                                        170
181 Leu Leu Gly Met Val Ala His Met Met Tyr Ser Gln Val Phe Gln Ala
    . 180
                                   185
184 Thr Val Asn Leu Gly Pro Glu Asp Trp Arg Pro His Val Trp Asn Tyr
           195
                               200
187 Gly Trp Ala Phe Tyr Met Ala Trp Leu Ser Phe Thr Cys Cys Met Ala
                           215
190 Ser Ala Val Thr Thr Phe Asn Thr Tyr Thr Arg Met Val Leu Glu Phe
191 225
                       230
                                           235
193 Lys Cys Lys His Ser Lys Ser Phe Lys Glu Asn Pro Asn Cys Leu Pro
                   245
196 His His Gln Cys Phe Pro Arg Leu Ser Ser Ala Ala Pro Thr
                                   265
               260
199 Val Gly Pro Leu Thr Ser Tyr His Gln Tyr His Asn Gln Pro Ile His
202 Ser Val Ser Glu Gly Val Asp Phe Tyr Ser Glu Leu Arg Asn Lys Gly
                           295
                                               300
205 Phe Gln Arg Gly Ala Ser Gln Glu Leu Lys Glu Ala Val Arg Ser Ser
                                           315
                       310
208 Val Glu Glu Glu Cys
209
211 <210> SEQ ID NO: 4
212 <211> LENGTH: 324
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Input Set: A:\KATO Sequence Listing.txt
Output Set: N:\CRF4\11022004\J019151C.raw

```
213 <212> TYPE: PRT
214 <213> ORGANISM: Homo sapiens
216 <400> SEQUENCE: 4
217 Met Ala Ala Ala Pro Gly Asn Gly Arg Ala Ser Ala Pro Arg Leu
                      5
220 Leu Leu Phe Leu Val Pro Leu Leu Trp Ala Pro Ala Ala Val Arg
223 Ala Gly Pro Asp Glu Asp Leu Ser His Arg Asn Lys Glu Pro Pro Ala
224
             35
226 Pro Ala Gln Gln Leu Gln Pro Gln Pro Val Ala Val Gln Gly Pro Glu
         50
                             55
229 Pro Ala Arg Val Glu Lys Ile Phe Thr Pro Ala Ala Pro Val His Thr
                                             75
                         70
232 Asn Lys Glu Asp Pro Ala Thr Gln Thr Asn Leu Gly Phe Ile His Ala
                     85
235 Phe Val Ala Ala Ile Ser Val Ile Ile Val Ser Glu Leu Gly Asp Lys
                                    105
                100
238 Thr Phe Phe Ile Ala Ala Ile Met Ala Met Arg Tyr Asn Arg Leu Thr
            115
                                120
                                                     125
241 Val Leu Ala Gly Ala Met Leu Ala Leu Gly Leu Met Thr Cys Leu Ser
                            135
244 Val Leu Phe Gly Tyr Ala Thr Thr Val Ile Pro Arg Val Tyr Thr Tyr
245 145
                        150
                                            155
247 Tyr Val Ser Thr Val Leu Phe Ala Ile Phe Gly Ile Arg Met Leu Arg
                    165
                                        170
250 Glu Gly Leu Lys Met Ser Pro Asp Glu Gly Gln Glu Glu Leu Glu Glu
                                    185
                180
253 Val Gln Ala Glu Leu Lys Lys Lys Asp Glu Glu Phe Gln Arg Thr Lys
           195
                                200
256 Leu Leu Asn Gly Pro Gly Asp Val Glu Thr Gly Thr Ser Ile Thr Val
                            215
                                                220
259 Pro Gln Lys Lys Trp Leu His Phe Ile Ser Pro Ile Phe Val Gln Ala
260 225
                        230
                                            235
262 Leu Thr Leu Thr Phe Leu Ala Glu Trp Gly Asp Arg Ser Gln Leu Thr
                    245
                                        250
265 Thr Ile Val Leu Ala Ala Arg Glu Asp Pro Tyr Gly Val Ala Val Gly
                                    265
                260
268 Gly Thr Val Gly His Cys Leu Cys Thr Gly Leu Ala Val Ile Gly Gly
            275
271 Arg Met Ile Ala Gln Lys Ile Ser Val Arg Thr Val Thr Ile Ile Gly
       290
                            295
                                                300
274 Gly Ile Val Phe Leu Ala Phe Ala Phe Ser Ala Leu Phe Ile Ser Pro
275 305
278 Asp Ser Gly Phe
281 <210> SEQ ID NO: 5
282 <211> LENGTH: 153
283 <212> TYPE: PRT
284 <213> ORGANISM: Homo sapiens
286 <400> SEQUENCE: 5
```

Input Set : A:\KATO Sequence Listing.txt
Output Set: N:\CRF4\11022004\J019151C.raw

287 Met Asn Val Gly Thr Ala His Ser Glu Val Asn Pro Asn Thr Arq Val 290 Met Asn Ser Arg Gly Ile Trp Leu Ser Tyr Val Leu Ala Ile Gly Leu 293 Leu His Ile Val Leu Leu Ser Ile Pro Phe Val Ser Val Pro Val Val 35 40 296 Trp Thr Leu Thr Asn Leu Ile His Asn Met Gly Met Tyr Ile Phe Leu 55 299 His Thr Val Lys Gly Thr Pro Phe Glu Thr Pro Asp Gln Gly Lys Ala 302 Arg Leu Leu Thr His Trp Glu Gln Met Asp Tyr Gly Val Gln Phe Thr 303 85 90 305 Ala Ser Arg Lys Phe Leu Thr Ile Thr Pro Ile Val Leu Tyr Phe Leu 100 105 308 Thr Ser Phe Tyr Thr Lys Tyr Asp Gln Ile His Phe Val Leu Asn Thr 309 115 120 125 311 Val Ser Leu Met Ser Val Leu Ile Pro Lys Leu Pro Gln Leu His Gly 312 130 135 140 314 Val Arg Ile Phe Gly Ile Asn Lys Tyr 315 145 150 317 <210> SEQ ID NO: 6 318 <211> LENGTH: 153 319 <212> TYPE: PRT 320 <213> ORGANISM: Homo sapiens 322 <400> SEQUENCE: 6 323 Met Asn Val Gly Val Ala His Ser Glu Val Asn Pro Asn Thr Arg Val 1 10 326 Met Asn Ser Arg Gly Ile Trp Leu Ala Tyr Ile Ile Leu Val Gly Leu 329 Leu His Met Val Leu Leu Ser Ile Pro Phe Phe Ser Ile Pro Val Val 35 40 332 Trp Thr Leu Thr Asn Val Ile His Asn Leu Ala Thr Tyr Val Phe Leu 55 335 His Thr Val Lys Gly Thr Pro Phe Glu Thr Pro Asp Gln Gly Lys Ala 336 65 70 75 338 Arg Leu Leu Thr His Trp Glu Gln Met Asp Tyr Gly Leu Gln Phe Thr 85 341 Ser Ser Arg Lys Phe Leu Ser Ile Ser Pro Ile Val Leu Tyr Leu Leu 100 . 105 110 344 Ala Ser Phe Tyr Thr Lys Tyr Asp Ala Ala His Phe Leu Ile Asn Thr 115 120 347 Ala Ser Leu Leu Ser Val Leu Leu Pro Lys Leu Pro Gln Phe His Gly 130 135 350 Val Arg Val Phe Gly Ile Asn Lys Tyr 351 145 150 353 <210> SEQ ID NO: 7 354 <211> LENGTH: 200 355 <212> TYPE: PRT 356 <213> ORGANISM: Homo sapiens

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/019,151C

DATE: 11/02/2004 TIME: 11:17:13

Input Set: A:\KATO Sequence Listing.txt
Output Set: N:\CRF4\11022004\J019151C.raw

Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:1; Line(s) 6
Seq#:2; Line(s) 104

## VERIFICATION SUMMARY PATENT APPLICATION: US/10/019,151C DATE: 11/02/2004 TIME: 11:17:13

Input Set: A:\KATO Sequence Listing.txt
Output Set: N:\CRF4\11022004\J019151C.raw

```
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:626 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:17
L:629 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:17
L:632 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:17
L:635 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:17
L:638 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:17
L:641 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:17
L:644 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:17
L:647 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:17
L:650 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:17
L:653 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:17
L:656 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:17
L:659 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:17
L:662 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:17
L:854 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:20
L:857 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:20
L:860 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:20
L:863 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:20
L:866 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:20
L:869 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:20
L:872 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:20
L:875 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:20
L:878 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:20
L:881 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:20
L:884 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:20
L:887 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:20
L:890 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:20
L:893 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:20
L:896 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:20
L:899 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:20
L:902 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:20
L:905 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:20
L:908 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:20
L:911 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:20
L:914 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:20
L:943 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:21
L:946 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:21
L:949 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:21
L:952 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:21
L:955 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:21
L:958 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:21
L:961 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:21
L:964 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:21
L:967 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:21
L:970 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:21
L:973 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:21
L:1084 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:23
L:1087 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:23
```

VERIFICATION SUMMARY

DATE: 11/02/2004 TIME: 11:17:13

PATENT APPLICATION: US/10/019,151C

Input Set : A:\KATO Sequence Listing.txt Output Set: N:\CRF4\11022004\J019151C.raw

L:1090 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:23 L:1093 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:23 L:1096 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:23